IF I'M TO SPEAK OUT, SOMETHING DEFINITELY FEELS WRONG ...
THERE'S A DISTURBING FEELING... THAT I'VE NEVER FELT BEFORE!
CHAPTER 61: SENA'S GROWTH

W-WAS THAT GOOD ENOUGH?

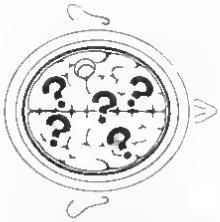
I DON'T KNOW WHETHER SAYING SUCH VAGUE THINGS IS ENOUGH, BUT I HAVE TO VOICE MY OPINION NO MATTER HOW HARD THE SITUATION IS.
NO MATTER HOW DIFFICULT THE SITUATION IS,...
YOU HAVE TO HAVE AN OPINION OF YOUR OWN.
NUH?
ACTUALLY, I HAVEN'T EVEN THOUGHT ABOUT THAT.
EATHER, WHAT'S WITH THINKING ON YOUR

I... THINK SO...
WH-WHOAA!
SO MUCH BLOOD!
BY THAT, YOU MEAN THE WAY HIS BLOOD BURST?
AND THEN MAYBE DR. SAIJOU WILL BE ABLE TO FIGURE SOMETHING OUT FROM THAT...
DISTURBING FEELING

Bleeding
Skull
Dura mater
AND WHILE IT BUILDS UP, THE BLOOD SHOULD BE COAGULATING LIKE JELLY.
IN EPIDURAL HEMATOMA, BLOOD BUILDS UP IN THE SPACE BETWEEN THE DURA MATER AND THE SKULL, PUTTING PRESSURE ON THE BRAIN...
The built up blood would normally coagulate into a jelly-like state.
I SEE
ALTHOUGH HIS BLEEDING SEEMS TO HAVE STOPPED, I THINK THERE'S A TORN MAJOR ARTERY SOMEWHERE IN HIS BRAIN
BUT HIS BLOOD BURST OUT LIKE THAT...
TH-THERE'S NO WAY I CAN KNOW THAT.
HUH?!
THEN IN YOUR ESTIMATION, WHICH ARTERY IS TORN?

WE COULD PROBABLY KNOW IF THE X-RAY MANAGED TO CAPTURE IT, BUT IN THIS CASE IT DIDN'T
HOW IS THE X-RAY LOOK?
EVERYTHING WAS ALRIGHT.
EPIDURAL HEMATOMA CASES ARE MOSTLY ACCOMPANIED BY SKULL FRACTURE. EVEN IF A CT SCAN CAN'T SHOW THE BLEEDING, THE FRACTURE SHOULD SHOW UP IN THE X-RAY.
NO, I MANAGED TO AVOID IT
DID YOU HIT YOUR HEAD IN THE SURF?
I ALSO TRIPPED IN THE SUB, THAT'S PROBABLY WAY MY FEET ARE LIKE THIS...
EVEN THE MOTHER DIDN'T KNOW HE HIT HIS HEAD..
THERE ARE MANY HARD OBJECTS IN A BUS. WHILE DESPERATELY TRYING TO GRAB ONTO SOMETHING, YOU NEVER KNOW WHERE THE K... COULD HAVE HIT HIS HEAD.

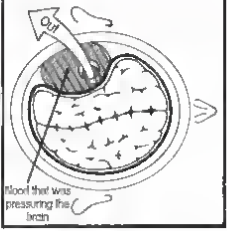
I'M THE LAST TO ARRIVE SO I ONLY KNOW THE SITUATION THROUGH WHAT I HEARD ON THE PHONE
THIS IS A WEIRD CONVERSATION
.....?
?
WELL, YOU'RE RIGHT...
O-OKAY
BUT I'M SURE YOU'LL FIGURE IT OUT, SO PLEASE SPEAK UP IF YOU NOTICE SOMETHING.



JUST AS SENA SAID, THERE SHOULDN'T BE ANY WAY TO TELL WHICH ARTERY IS CAUSING THE BLEEDING!

Since we can't see through the skull, we don't know where the bleeding is.

FOR NOW, WE'VE CREATED A HOLE TO DRAIN THE BLOOD THAT WAS PRESSURING HIS BRAIN. HOWEVER, WE STILL DON'T KNOW THE SITUATION BELOW THE SKULL



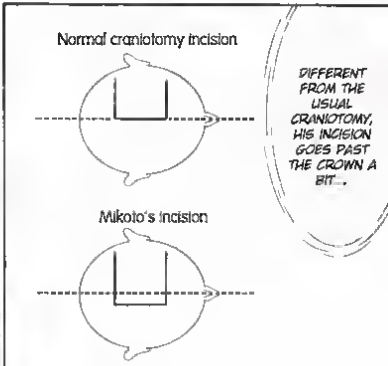
I'LL NOW RESUME THE SURGERY.

SOME-
THING IS
WEIRD.
HM?

THIS
INCISION
DR
SAIJOU
MADE...

SCALP
REMOVED

CHECK-
ING THE
SKULL.
AH!


Normal craniotomy incision
Mikoto's incision
DIFFERENT
FROM THE
USUAL
CRANIOTOMY,
HIS INCISION
GOES PAST
THE CROWN A
BIT...

DR. SAIJOU, HERE...
IT'S SMALL, BUT ISN'T THIS A FRACTURE?!
YEP, GOOD OBSER-VATION.
YOU DIDN'T EVEN MISS SUCH A SMALL CRACK
OBSER-VATION SKILLS LIKE THAT ARE IMPOR-TANT.
WHOA, HE'S PRAISING ME!
BUT WHY DIDN'T IT SHOW UP ON HIS X-RAY IMAGE?
EVEN IF IT'S SMALL, NOR-MALLY IT WOULD...
BECAUSE

IT'S AT THE TOP OF HIS HEAD.
AH, I SEE!
THAT'S RIGHT.
THAT'S BECAUSE THE CROWN IS THE ONLY THING THAT CAN'T BE CAPTURED BY X-RAY...
THAT'S WHY WE SHOULD PAY MORE ATTENTION TO THAT PART.
OH, I SEE NOW...
As pictured above, strictly speaking, it's possible to project the crown by tilting the head 90 degrees. But not only is this a difficult position for patients, the image would also overlap with the patient's teeth and jaw. Thus, a clean crown image is impossible to shoot.

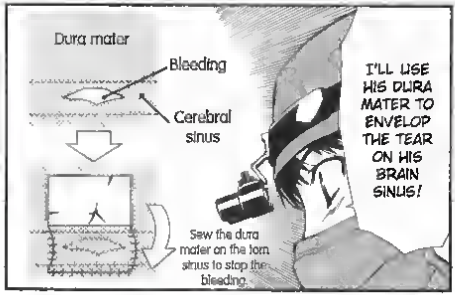
THE CLOSEST ARTERY THAT WOULD BE MOST LIKELY TO CAUSE MAJOR BLEEDING .
AH, IN THAT CASE PROBABLY ...
DR SAIJOU, ARE YOU BY ANY CHANCE...
Cerebral sinus
PERHAPS, IT'S HIS CEREBRAL SINUS, ISN'T IT?
I'VE FINALLY FIGURED OUT WHAT YOU'RE TRYING TO DO, DR. SAIJOU.
BEFORE REMOVING THE SKULL, I HAVE A REQUEST FOR THE ANAES-THETIST...
WHEN THAT HAPPENS, I HOPE NO ONE WILL PANIC
MOST LIKELY, YES
IF THAT'S TRUE, THEN AS YOU SAID, IT WOULD BE A VERY DANGEROUS SITUATION.

THERE MIGHT BE INTENSE BLEEDING WHEN YOU REMOVE THE BONE FLAP
IF THE BLEEDING TRULY COMES FROM THE CEREBRAL SINUS.
Blood
Remove
LISTEN, SENA
IN THAT CASE, I'LL FOLLOW YOUR LEAD
HUH?
THAT ALSO APPLIES TO US
O-OKAY, GOT IT
THE ANAESTHETIST NEEDS TO PREPARE THE INFUSION, BLOOD TRANSFUSION AND THE VASOPRESSORS WELL, AND ALSO BE MENTALLY PREPARED TO OVERCOME DANGER
OKAY, LET'S START
BUT ISN'T THE ONLY WAY TO REPAIR TORN BRAIN ARTERIES BY USING FIBRIN SEALANT?
Y-YOU'RE RIGHT..
WE NEED TO PREPARE OUR HEARTS IN CASE HEAVY BLEEDING DOES TAKE PLACE, AND THINK OF HOW TO STOP IT

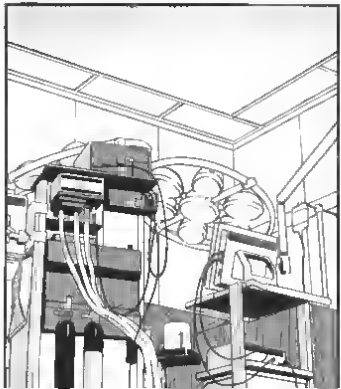
WHIRR
USING DRILL TO REMOVE SKULL
TO MINIMIZE BLEEDING, WE'LL REMOVE IT SLOW-
SPLURT
UGH!
!!
OH, SHIT!
NOO!

DON'T!
U-USE LOTS OF FIBRIN...

KOCHER'S FORCEPS!
BLOOD PRESSURE IS DROPPING FAST!
THIS... THIS IS WORSE THAN PREDICTED!


Dura mater
Bleeding
Cerebral sinus
Sew the dura mater on the torn sinus to stop the bleeding.
I'LL USE HIS DURA MATER TO ENVELOP THE TEAR ON HIS BRAIN SINUS!

THAT'S NOT ENOUGH TO SEAL IT!

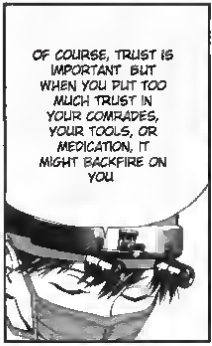


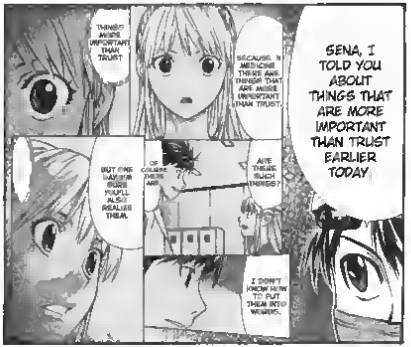
GO!
Y-YES!

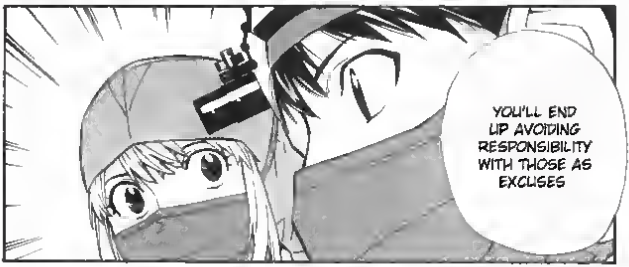
YOU DID GREAT.
WE'LL NOW PROCEED TO CLOSING.
DONE. SEALED THE BLEEDING
I NEVER KNEW THE DURA MATER COULD BE USED THAT WAY...
IF THIS BLOOD VESSEL IS NOT SEALED PROPERLY, IT MIGHT TEAR AGAIN.
THE SEALANT IS A HANDY TOOL
TO BE HONEST, ALL I COULD THINK OF WAS THE FIBRIN SEALANT
BUT IT'S NOT OMNI-POTENT

TAKE THE CT SCAN AND X-RAY AS EXAMPLES
YEAH
YOU'RE RIGHT

IN THE FUTURE, THERE WILL BE MORE HANDY TOOLS INVENTED...
BUT WE MUST NOT TRUST THEM EASILY.


OF COURSE, TRUST IS IMPORTANT BUT WHEN YOU PUT TOO MUCH TRUST IN YOUR COMRADES, YOUR TOOLS, OR MEDICATION, IT MIGHT BACKFIRE ON YOU


SENA, I TOLD YOU ABOUT THINGS THAT ARE MORE IMPORTANT THAN TRUST EARLIER TODAY.
THINGS MORE IMPORTANT THAN TRUST?
BECAUSE IN MEDICINE THERE ARE THINGS THAT ARE MORE IMPORTANT THAN TRUST.
ARE THERE SUCH THINGS?
OF COURSE THERE ARE.
I DON'T KNOW HOW TO PUT THEM INTO WORDS.
BUT ONE DAY, I'M SURE YOU'LL ALSO REALIZE THEM.


YOU'LL END UP AVOIDING RESPONSIBILITY WITH THOSE AS EXCUSES

NO MATTER HOW DIFFICULT THE SITUATION IS...
YOU HAVE TO HAVE AN OPINION OF YOUR OWN.
!!
I FOOLISHLY THOUGHT THAT VOICING MY OPINION WAS WHAT HE WAS REFERRING TO BE MORE IMPORTANT THAN TRUST.
ALTHOUGH IN REALITY, NO ONE CAN ACTUALLY TAKE RESPONSIBILITY FOR ANYONE'S DEATH.
I GET IT NOW
BUT WHAT'S MORE IMPORTANT IS TO HAVE A SENSE OF RESPONSIBILITY MUCH MORE THAN ANYONE ELSE
IF YOU HAVE THAT, YOU'LL THINK HARDER THAN ANYONE ELSE, AND YOU'LL PROVIDE BETTER TREATMENT FOR YOUR PATIENTS
YEAH.

MR. ASSOCIATE DIRECTOR AND SENA, CAN I LEAVE THE REST OF WORK TO YOU?
HUH?

JUST LIKE THIS MAN!
FINISHED CLOSING SKULL!

I'LL EXAMINE THE OTHER PATIENTS.
I DON'T MIND. BUT WHY?

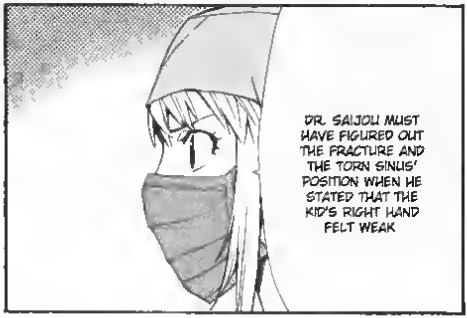
HE NEVER CEASES TO AMAZE ME EVEN THOUGH I TRIED TO TOPPLE HIM IN THE PAST.
HE'S TRULY A SAINT THAT DR. SAIJOU

THERE MIGHT BE MORE CRITICAL PATIENTS FROM THE ACCIDENT.

PHEW. WHAT A GUY.
O-OKAY ..
THEN, LATERS!

SENA, SO YOU REALIZED?
OF COURSE I DID.

AH
EVEN TODAY, HE ACTUALLY KNEW EVERYTHING BUT IN ORDER TO LET ME LEARN


DR. SAIJOU MUST HAVE FIGURED OUT THE FRACTURE AND THE TORN SINUS' POSITION WHEN HE STATED THAT THE KID'S RIGHT HAND FELT WEAK

I MIGHT BE DENSE, BUT WITH SO MANY HINTS, THERE'S NO WAY I WOULDN'T.

OH, THEN DR. KIRYUU
HE EVEN GOT ME TO CO-OPERATE WITH HIM.

HEHEHE YOU GOT IT.
WHAT HAPPENED AFTER WAS JUST TO LET ME FIGURE THINGS OUT ON MY OWN, WASN'T IT?

W-WELL .. I DO, BUT..
YOU'RE AN ANAESTHETIST AND A FORMER CARDIAC SURGEON, SO YOU MUST KNOW A LOT, RIGHT?
DO YOU MIND TEACHING ME MORE WHILE WE WAIT FOR HIS ANAESTHESIA TO WEAR OFF?
IT'S JUST ...
?
N-NO. OF COURSE I DON'T MIND
YOU DON'T WANT TO?
WAS I THE ONLY ONE TO FEEL THAT WAY?
I'VE BEEN WONDERING THIS FOR A LONG TIME, BUT HOW DO YOU CALCULATE THE DRUG DOSAGE FOR A CARDIOPULMONARY BYPASS?
IF I DO THAT, EVEN THIS GIRL MIGHT SURPASS ME ONE DAY.
UHMN... THEN, HERE'S A QUESTION.

BLAST Comic

TRANSLATOR
SHOUGEI

PROOFREADER
KOHAE

CLEANER & REDRAWER
SKAZOFF

TYPESETTER
LACIE

DISCLAIMER:
SINCE OUR STAFF ARE NOT DOCTORS OR WORKING IN MEDICAL FIELDS, SOME MEDICAL TERMS ARE BOUND TO BE INCORRECT. IF YOU FIND ANY, KINDLY TELL US AND WE'LL FIX IT RIGHT AWAY. THANKS

VISIT OUR WEBSITE AT:
HTTPS://BLASTCOMICSCANS.WORDPRESS.COM/

I CAN'T TAKE IT ANYMORE...
TOO MANY PROJECTS AND NOT ENOUGH HANDS...
WHY WON'T PEOPLE COME AND HELP US?
Kimiaru
Hell Teacher Nube Neo
Tomogui
Sigh
LOOK AT ALL THESE NEW PROJECTS... THEY LOOK SO INTERESTING,
YET, WE CAN'T PICK THEM UP BECAUSE WE LACK STAFF...
Raibai Izuna
EVEN OUR CURRENT PROJECTS ARE ON THE VERGE OF BEING DROPPED...
Poor babies
CHEER UP! MAYBE SOMEONE WILL APPLY AFTER SEEING THIS AD.
HM?
WHAT ARE YOU WAITING FOR? SEND YOUR APPLICATION IN NOW!

WE NEED ALL SORTS OF HELP! TRANSLATOR / PROOFREADER / CLEANER / TYPESETTER ALL NEEDED.
SEND YOUR APPLICATION TO BCSCANS@GMAIL.COM.